A CASE

from the auth

OF

# HYDROPHOBIA,

COMMUNICATED BY

### ALEXANDER MARCET. M.D. F.R. S.

PHYSICIAN TO GUY'S HOSPITAL.

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#### A CASE

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# HYDROPHOBIA,

WITH

#### AN ACCOUNT

OF

## THE APPEARANCES AFTER DEATH.

COMMUNICATED

BY ALEXANDER MARCET, M. D. F. R. S.

ONE OF THE PHYSICIANS TO GUY'S HOSPITAL.

In offering to the Society a case of hydrophobia, I am aware that similar narratives, uncommon as the disease may comparatively be, are not unfrequently to be found in medical writings. The pathology of this malady however, still continues enveloped in the greatest obscurity, and it is only by multiplying observations, and by diligently collecting descriptions of the disease, that we can hope to throw some light on its nature. If, therefore, on comparing the account which I am about to give,

with those of former observers, occasional repetitions or redundances may be remarked, it should not be forgotten that in an inquiry of this kind it is only by comparing various cases of the same disease, and by noticing their similarities, as well as their discordances, that we can expect to succeed in selecting and pointing out those diagnostic symptoms which characterise that disorder.

The opportunity which was afforded in the present instance, of inspecting the body after death, and the full, though unsuccessful trial, which was made of some powerful medicines, were additional inducements, without which I should not probably have presumed to offer this case for publication: and if it should be thought too long or too abundant in particulars, I beg it may be remembered that it is from accuracy of detail that an insulated case derives its principal interest, and that circumstantial accounts afford the only reasonable ground for future generalization.

On Thursday, the 30th of April, 1807, Mr. Astley Cooper informed me that he had just been introduced by Mr. Weston, surgeon and apothecary, in Shoreditch, to a man, 28 years of age, \* who appeared to labour under hydrophobia; and thinking that I might be desirous to see an instance of this

<sup>\*</sup> Emanuel Odell, printing-type maker, Suzannah-street,

rare and formidable disease, was so obliging as to propose that I should attend this patient with Mr. Weston and himself.

Accordingly, on the same day, I accompanied these gentlemen to the house of this unfortunate young man. But before I enter upon the history of the case, I think it necessary to premise, that although I have undertaken to draw it up, both the gentlemen just mentioned have greatly contributed to collect the materials; and that Mr. Weston in particular, watched over this poor man during his illness with such a degree of kindness and assiduity, and recorded his very words and expressions with so much care and accuracy, that if this communication be thought worthy of attention, he has undoubtedly a principal claim to the acknowledgements of the Society.

On our first entering the room we found this man sitting by the fire-side, with the eyes glassy, the pupils dilated, the countenance sallow and dejected, and a peculiar timid look. He received us with a kind of studied civility, through which it was easy to discover a mixture of fear and distrust. On being desired to relate to me the circumstances of his illness, he stated them in a very consistent and clear manner; and from his own narrative, together with Mr. Weston's account of the case previous to my first visit, I collected the following particulars.

First Day.—On Monday the 27th of April, after returning from his work, he complained to his wife of a pain, or rather a sensation of heat in the back of his hand, as if the part had been scorched by the sun. Towards evening this pain crept up along the outside of the arm, following the course of the radial nerve, and then shooting up to the scapula, without in the least affecting the axilla. His general health did not as yet appear materially impaired:

Second Day.—On Tuesday, the 28th, he went to work as usual, complaining only of the pain in his arm; but finding this pain troublesome, and feeling himself seized with a sense of general uneasiness, he left his work in the forenoon and went with some of his shopmates to the public-house, where he got intoxicated. Early in the evening however, he ate his supper, and went to bed as usual. He slept well, having awoke only once in the night, and drank a glass of water. He had been costive two days.

Third Day.—On Wednesday, the 29th, he kept his bed later than usual, and felt restless and uncomfortable. He complained of alternate chills and flushes. At about twelve o'clock, he asked for his breakfast, which was put before him. But on attempting to swallow, he found himself unable to do it, owing, as he said, to a violent catching in his breath which took place whenever he renewed the attempt. This day passed without his taking either food or drink. The nature of his disorder being

not yet suspected by his friends, they applied a blister to the nape of his neck. During the night he often tried to sleep; but every time he did this, he was almost instantly awakened by frightful dreams, which occasioned a sense of suffocation, followed by a paroxysm of convulsive breathing.

Fourth Day.—On Thursday, the 30th, he was much worse, the convulsive paroxysms of the organs of respiration being more frequent and violent, and being brought on not only by any actual attempt to eat or drink, but likewise by the mere idea of it. From Mr. Weston's first visit the nature of the disease did not appear to him to admit of doubt; yet from motives of humanity he studiously avoided directing the attention of the patient to the true cause of his disorder. It was not until this day that by some collateral questions respecting the peculiar sensation in the back of his hand, he was led to relate, that about two months before the beginning of his illness, (the precise day could not be ascertained) he was slightly bitten in the fore-finger of his left hand by a little dog, which he was attempting to set on to bait a badger. The bite however, had immediately healed so as to leave only a small scar, which was now scarcely discernible. He mentioned this circumstance with apparent indifference, and without expressing the least suspicion that it could have any connection with his present illness. Upon further inquiry however, it appeared that this dog had also

bitten on the same day his master, a Mr. D.\*, in both his hands, and had attempted likewise to bite his master's mother, upon which the dog was put out of the house, and was not heard of till some time afterwards, when Mr. D. was told that it lay dead in a ditch in Hackney fields. Mrs. D. moreover stated, that for two days before the dog left home, he did not bark so distinctly as he used to do, and refused to take food.

It was on the Thursday afterooon, just after these circumstances had been made out, that I saw the patient for the first time, and found him in the state which I have described. At this period, which, if the dread of swallowing be considered as the characteristic of the disease, might be reckoned the third day of his disorder, he complained of no pain except of that in his shoulder; but said he felt uneasy sensations all over his body, attended with thirst and frequent rigors. He repeatedly observed, that all his complaint was in his throat, and that he was choaked whenever he attempted to swallow. On our proposing to him to drink, he started up and recovered his breath by a deep convulsive inspiration; yet he expressed much regret that he could not drink, as he conceived it would give him great relief, his mouth being extremely parched and clammy. On

<sup>\*</sup> Mr. D. did not use any precautions whatever to prevent the effects of this accident, and yet to this moment (November, 1807;) he has not felt any inconvenience whatever from it.

being urged to try however, he took a cup of water in one hand and a tea-spoon in the other. thought of drinking out of the cup appeared to him intolerable; but he seemed determined to drink with the spoon. With an expression of terror, yet with great resolution, he filled the spoon and proceeded to carry it to his lips; but before it reached his mouth, his courage forsook him, and he was forced to desist. He repeatedly renewed the attempt, but with no more success. His arm became rigid and immoveable whenever he tried to raise it towards his mouth, and he struggled in vain against this spasmodic resistance. At last shutting his eyes, and with a kind of convulsive effort, he suddenly threw into his mouth a few drops of the fluid, which he actually swallowed. But at the same instant he jumped up from his chair and flew to the end of the room, panting for breath, and in a state of indescribable terror. In a few minutes, however, he repeated the experiment with less horror, but with considerable difficulty. Emboldened by these trials and by our encouragement, he soon attempted to suck a piece of orange, and this he did two or three times, though not without great effort and struggling. I asked to inspect his throat and he seemed anxious to comply with my wish, though he evidently dreaded the attempt. He opened his mouth, but as soon as he perceived the spoon with which I was going to press his tongue down in order to have a sight of his throat, he eagerly seized my hand, and begged of me to desist. Mr. Weston, however, was more successful, and gave

us for an instant a view of the patient's throat, which we thought exhibited a slight appearance of redness and swelling; but scarcely two or three seconds elapsed before he jumped up and a fit of spasm came on. We observed that he often tried to swallow his saliva, and that each attempt brought on a spasm in his breathing. This however, he said, he was obliged to do in order to moisten his throat, which was extremely parched. The mere act of blowing his nose occasioned great agitation. His wife having poured out in his presence some drink for the child, he did not seem to be at all affected by it; but on Mr. Cooper unexpectedly sprinkling a few drops of water on his hands, he started up and was seized with one of his fits of suffocation. We persuaded him to wash his hands, which he did with great resolution and with but little reluctance. The first sensation he expressed in dipping his hands resembled much that which is experienced in going into a cold bath, that is a sudden and deep inspiration, followed by a momentary suspension of breathing. But he soon became used to it, and said it was grateful to him. He also suffered his face to be washed, and rather appeared to like this operation after the first sensation was over. We tried the same experiments with warm water, which occasioned similar effects, though in a less degree.

The pulse was at 76 and feeble, whilst the patient was quiet and composed; but it was considerably accelerated during the fits of agitation. We example

mined the hand in which he was bitten, but could not discover the least vestige of inflammation, and indeed the scar itself was scarcely perceptible. agreed that he should have four leeches applied to his throat, and that a bolus, consisting of three grains of pure opium, to which, at Mr. Weston's suggestion, an equal quantity of vitriolated iron was added, should be administered every hour, or at least as often as he could be prevailed upon to swallow the bolus. We were well aware in prescribing opium, that this remedy had been tried to a very considerable extent in a number of instances, without success: but we were in hopes that by administering opium in large doses, we might, if not procure sleep, at least, perhaps, allay the irritability of our patient, sufficiently to enable us to try other remedies.

At ten o'clock at night, we found the patient somewhat more composed. He had taken two of the doses, making six grains of pure opium, and the leeches had bled freely. To the latter circumstance he attributed his apparent improvement. He still, however, complained of great thirst and dryness of the mouth, and made frequent and spontaneous efforts to swallow a few drops of fluid, especially mint tea. He expressed great satisfaction whenever he succeded in forcing a little liquid down his throat, and whilst still breathless and exhausted by the effort, he exclaimed, that he would drink a pint if he could. Just before we entered he had felt some inclination to sleep: he had made some urine, but his bowels conti-

nued costive. The pulse when the patient was quiet and undisturbed, was at \$4, and regular, though feeble; but it rose to 100, and becaine irregular upon the slightest agitation, such as that occasioned by our feeling his pulse. He still swallowed his saliva as often as he could, but complained of its being more and more thick and sticky. He never foamed at the mouth. He swallowed his bolus before us with great determination, though not without much pain and difficulty; and we observed that he could swallow a small crumb of bread when dry, better than when wetted.

The bolus was ordered to be continued as before; and to this I proposed to add moderate doses of arsenic, frequently repeated. It struck me that a full trial of this violent remedy, was in a case of this kind perfectly warrantable; and that in the event of a failure (which of course we considered as extremely probable), still it would be of some use to have ascertained by a decisive trial, the inefficacy of this powerful alterative, so as to lay it aside in future and leave the field open for other experiments. Mr. Cooper and Mr. Weston having expressed their full approbation of this plan, three drops of Fowler's solution were ordered to be taken every other hour in two drachms of peppermint water, with half a drachm of syrup.

Fourth Day.—Friday, 1st of May. When we called at eight o'clock in the morning, our patient had just risen. His eyes appeared more glassy, and

his countenance much more sunk and expressive of debility than the day before; his pulse fluctuated between 100 and 116. He said he had not so much of the pain in his arm and shoulder, but that he felt weaker and extremely sleepy. Indeed, he was no sooner recovered from the agitation which our appearance first occasioned, than he fell into a succession of frequent, but very transient slumbers, out of which he awoke each time with a convulsive start resembling those occasioned by diseases of the These slumbers or lethargic intervals scarcely heart. ever lasted so long as one minute, being almost always interrupted in the course of thirty or forty seconds, by the start just mentioned, which left him for a few moments in a state of agitation similar to that which he experienced after the act of deglutition. We found his pulse during one of these dozing intervals at about 100; yet we observed, that at the same time his respiration was remarkably slow. Indeed, he did not appear to make more than two or three inspirations in a minute, the second of which generally roused him in the manner above described. It may be more easily conceived than described how distressing this state must have been; and I need not say how much our sympathy for this poor man's sufferings was increased, when we found that, even during these short intervals of sleep, they were but very imperfectly relieved; "for," said he, "whilst dozing, I can hear, it is not like sleep."

On inquiring into the manner in which he had passed the night, we heard from Mr. Weston's

assistant, who had sat up with him, that he had been extremely restless. At eleven o'clock at night he had taken, not without much difficulty and agitation, the first dose of the mineral solution, and the second at one o'clock; but he had refused to take the third draught, saying it was too sweet, and made his mouth more clammy. He had, however, continued the bolus, though not with strict regularity. had often appeared overcome by sleep during the night; but his slumbers had never lasted more than three minutes at a time. He had been troubled with flatulence, particularly after swallowing liquids, of which he had taken about a pintin the course, of the night, but never more than a few drops at a time, and always with considerable difficulty. He had made some urine, but continued obstinately costive. During some of his convulsive paroxysms he had complained of a sensation in his urethra, as if some urine had been discharged. Indeed, it appeared that once or twice some moisture had actually oozed from the urethra; but in general this sensation was not attended with any discharge.

Considering that he had taken within the preceeding fifteen hours about thirty grains of opium, and as much vitriolated iron, without any benefit, we agreed to discontinue these medicines; and as he had objected to the last doses of the arsenical solution, in the form in which it was administered, we directed that five drops of this medicine should be mixed with crumb of bread, and given him in the form of a bolus as often as he could be prevailed upon to swallow it.

At four o'clock, p. m. we found him much in the same state, though less under the influence of opium than he was in the morning. He had taken twenty-five drops of the arsenical solution since our last visit, and felt no inconvenience from it. His pulse fluctuated between 104 and 112, and the difficulty of swallowing was not increased. He still suffered his head and face to be washed, and was even observed to smile at his children whilst playing with water, and splashing it about very near the place where he sat.

At ten o'clock at night we found he had lost all inclination to sleep, and had become much more irritable. When we came into the room he appeared suspicious, and even expressed a sort of dread of us, as if expecting that something particular was to be done. He soon however, became reconciled to our presence, and began to converse with us. We observed that in talking he rolled his head round and round in a peculiar manner, and stammered as if he had been intoxicated; but his expressions were perfectly distinct and proper. The cat passing and repassing under his chair, made him start up and rebuke the animal peevishly; but he immediately apòlogized for being so fractious. Being questioned as to the impression which our first appearance had made upon him, he acknowledged that an idea had

come across his mind that we might perhaps have some queer instruments about us, and that some experiment might be tried upon him. But he added, that finding it was not the case, he felt great pleasure in cur company. He took his bolus before us with great self-command, but in the act of swallowing he had a convulsive paroxysm, very much resembling those which occur in tetanus, his body being drawn backwards with great violence. He bit his tongue severely during this paroxysm. There was no foaming at the mouth, but he continued to be much annoyed by the viscid saliva before mentioned. We examined again his throat and fauces, and could discover no unnatural appearance. He drank several tea spoonfuls of mint tea, and apparently with much less pain than he had experienced in swallowing the last bolus. On being asked, whe ther he could gargle, he instantly fell into a violent fit of suffocation, and exclaimed on recovering his breath "not for a million of money!" On perceiving a small insect crawling across the table, he jumped out of his chair, and appeared much agitated. A drop of water being sprinkled on his face unawares, he sprung up with a convulsive start, and then said, in a tone which made us regret that the experiment had been tried, "Indeed, gentlemen, this is not fair!" Immediately after which however, the poor man apologized for his rudeness, and said he was convinced that all we did was for his good. The pulse varied from 104 to 116, and the bowels continued costive. He had taken thirty drops more of the

arsenical solution since the morning, making at least sixty drops in the last twenty-four hours, and he had no pain in his stomach or head, nor any inclination to vomit. He complained a good deal of the pain in his shoulder, and of the peculiar sensation in his urethra, above described.

Fifth Day.—(Saturday, 2d of May.) On the next morning at eight o'clock, we found him much Mr. Newington, surgeon and apothecary, in Bishopsgate-street, who sat up with him the whole night, related, that he had been at times extremely unmanageable. He had occasionally taken the drops, but at other times had obstinately refused them. He had repeatedly been prevailed upon to retire to his bed-room, but had returned to the parlour under an apprehension that it was intended to put him under confinement. At one time he seized a large stick and threatened to strike his attendants; but soon afterwards he apologized for the violence of his conduct. Early in the morning, having at last been prevailed upon to lye down on his bed for a few minutes, he suddenly jumped up nearly suffocated, and ran into the parlour roaring and calling for water in the most violent manner. Some mint tea was given him by his own desire, which he seized with extreme eagerness, and of which he swallowed a few drops with great difficulty. During these paroxysms he was observed to have erections of the penis, and an inclination to void his urine. Towards the morning he began to spit almost incessantly, now and then making a great effort to clear his fauces of the viscid saliva, after which he seemed to swallow small quantities of fluid with less pain and agitation. He had taken twenty-five drops of the arsenical solution during the night, making in all eighty-five drops in thirty-six hours, and no symptom had occurred which could be referred to this medicine. It had been, however, discontinued from five o'clock in the morning, no advantage having been perceived from it, and we thought it adviseable to lay it aside altogether.

When we entered the room he appeared much agitated. "Oh, do something for me," cried he, " I would suffer myself to be cut to pieces! I cannot raise the phlegm; it sticks to me like birdlime." He then endeavoured to collect himself and express his feelings; but in vain. At last he exclaimed-" Gentlemen, don't ask me questions-I cannot say more—My feelings cannot be described!" His pulse, at that moment, was as quick as 136, but tolerably strong and regular. He appeared still coherent and distinct in his ideas; but some of his perceptions were considerably disturbed. His sight was not materially impaired, for he could tell what hour it was by looking at the clock: but he often fancied he beheld objects which were not before him. He thought, for instance, that he saw various insects and reptiles crawl about him. "My eye sight is queer," said he, "I think I see strange animals, &c." Once or twice he exclaimed with an

accent of terror,-" Who is pouring cold water down my head?" Yet no one was near him. was conscious of his extreme irritability, and often prayed to be kept tranquil. This unfortunate man in the height of his distress still apologized for his acts of violence, and declared that he could not conceive what occasioned this extraordinary agitation. His pupils were now remarkably dilated, and his eyes looked particularly wild and glassy. His tongue was of a morbid red colour and dry, and his lips parched. He still, now and then, sipped a few drops of fluid with no more difficulty than on the preceding day. Mr. Cooper having applied his finger to one of his carotids so as to make a gentle pressure upon it, the patient at first did not seem to notice it; but in a few seconds he suddenly jumped up, and burst into a most violent paroxysm of rage. "What have you done to me?" cried he, with an inexpressible look of terror: "Why do you throw cold water down my head?" But he soon perceived his mistake, and begged pardon with great emphasis, for the impropriety of his conduct.

From the first appearance of his symptoms to this day, he had had no passage through his bowels, although a cathartic draught and an enema had been administered. But he had at last, this morning, a dark costive motion. There was no deficiency in the secretion of urine. After desiring the women to go out of the room, he requested us to examine his penis, in which he had uneasy sensations. We

found it inflamed round the orifice of the urethra, from which a few drops of a yellowish fluid had been discharged. He observed that he had had several erections during the night, at the time he was He now began to suspect that his end was approaching, and often prayed God Almighty to have mercy on him and to release him. Sometimes he consoled his wife, and desired her not to despond. During his more quiet intervals he talked slowly and with some difficulty, but with peculiar emphasis, and with the rotatory motion of his head which I have before described. His memory did not appear to be in the least impaired, although his violence and agitation were rapidly increasing. An enema had been administered, and the introduction of water into the rectum had not, contrary to our expectation, occasioned any particular uneasiness. Having abandoned all our former plan of medicines, we ordered five grains of extractum hyosciami to be taken in a little pepper-mint water, and repeated every hour.

When we called again at four o'clock in the afternoon, we found the house door bolted and the patient's friends appeared at first unwilling to give us admittance. The reason of this was, that after taking the second dose of hyosciamus, our poor patient had suddenly burst into a dreadful paroxysm of rage. He exclaimed, that the medicine burnt him to death, and threw himself on a bason of water out of which he drank about half a pint with undescribable

eagerness. From this moment he had conceived that we meant to poison him, and had expressed the greatest reluctance to our approaching him, all his former efforts of civility and restraint being now changed into the most vociferous abuse.

As the hope of affording relief by any kind of treatment or medicines was now quite vanished, and as our presence could only have had the effect of exasperating the patient, we abstained from shewing ourselves to him; but through the cracks of the door we anxiously watched the close of this melancholy He was lying in bed with his eyes sometimes. shut, sometimes open, and rolling in the wildest He was muttering and talking incoherently, though he still at times spoke sensibly. He often cried out, "don't touch me," although no body was near him. Abundant sweats broke out on the whole surface of his body, and he had frequent and copious flows of urine. His breathing was irregular and attended with a degree of stertor. He was often agitated with convulsive motions in different parts of his body, and more especially in his toes. He spat frequently, and complained more and more of the thick saliva. Mr. Weston having ventured into the room and felt his pulse, whilst in the state just described, was surprized to find it only at 100, and presently afterwards it fell to 70. His wife and brother told us that he had that day, for the first time, talked of the dog, and connected the circumstance of having been bitten with his present situation. But there was

strong reason to suspect that this idea had been suggested to him by the indiscretion of some of the bystanders, who had long been watching for the symptom of barking, which they confidently expected, and thought at last to have clearly discovered in the peculiar noise which he made in breathing.

In the evening he continued extremely suspicious and irritable. But he appeared more exhausted and had intervals of tolerable stillness, which might have been mistaken for real tranquillity, had he not often been observed to cast his eyes round the room with a peculiar expression of wildness and distrust. He could not bear to be touched, nor even to be looked at, and the idea of poison constantly lurked in his mind. His pulse now varied from 100 to 112, and all the other symptoms continued unabated. Once, after a violent paroxysm, he jumped out of bed, seized a bason of water, and violently splashed it with his own hand all over his face and body, till his shirt was quite wet, after which he threw himself into his bed again.

Sixth Day.—(Sunday, 3d May).—The next morning at eight o'clock, we found him evidently sinking. He had not been out of bed since the preceding day, and his urine was discharged involuntarily. He had this morning a copious black stool. His horror when a stranger approached him was still greater than before, and we continued to observe him only through the cracks of the door. His spitting was almost incessant. He had had no sleep at all du-

ring the night, and had been at times delirious. He had sung songs, and talked of drinking with his friends. Yet he knew all those who were about him, and still spoke with kindness to his wife and children. He had drunk a good deal during the night, but in the morning refused all kinds of liquids, thinking we had put poison into them.

He continued nearly in the same state till about three o'clock in the afternoon, at which time he suddenly became more tractable and conversed for some time with Mr. Weston and another gentleman, who prevailed upon him to swallow a little wine. At this time his extremities became cold, his countenance hippocratic, and his pulse was scarcely perceptible. Yet he was inclined to talk and to relate every circumstance of his case. His saliva now became so thick that he frequently took it out of his mouth with his fingers and threw it on the floor. But he seemed afraid of its falling on any one, and begged his brother to take care. He frequently complained of an offensive smell about him. this time his abdomen had become tense, swelled 'and painful, and he desired his brother to look if there was not something tight round his body. became sick and vomited up the wine he had drunk. An enema was administered and was immediately returned with a quantity of flatus.

He complained much of a burning heat about the præcordia, and still talked of the pain in his shoulder.

His countenance, whilst speaking, often put on a sardonic smile. Between five and six o'clock he expressed some wish of sitting up to tea; but tea being brought to him he shuddered at the sight of it. Once after spitting, he said he thought he saw his saliva burn. Another time he said there was blood in it, and desired Mr. Weston to look at it. His pulse about this time was 132, and extremely small. He now became exceedingly weak and restless, and his dissolution seemed to be fast approaching. At six o'clock he raised himself in his bed apparently much oppressed and striving to vomit, but having failed in the attempt, he fell back on his pillow and suddenly expired.

### APPEARANCES AFTER DEATH.

THE body was opened the next day by Mr. Henry Cline and Mr. Jones, in the presence of Dr. Yeloly\*, Mr. Astley Cooper, Mr. Weston, and myself;

\* Dr. Yelloly saw the patient frequently with Mr. Cooper and myself during the course of his illness, and witnessed most of the circumstances related in the case. In the latter stage of the disease, the patient was also seen by Dr. Dennison, Dr Farre, and a few other medical men.

About the middle of December of the present year (1807), I saw at Highgate, with Dr. Yelloly, another case of Hydrophobia, the subject of which was a lad, sixteen years of age,

and Mr. Cooper was so obliging as to draw up the following account of the morbid appearances.

"The abdomen being first opened the intestines were found much inflated; but the external appearance of all the viscera of this cavity was free from inflammation, and unaltered by disease of any kind. Upon opening the stomach however, a slight inflammatory appearance was observed upon its internal surface, occupying a space about the size of the palm of the hand, and extending from the left extremity of that organ to the middle of its posterior surface."

"The pharynx was considerably inflamed behind both the mouth and nose, and in the coophagus there were several detached spots of inflammation at various distances in the course of its canal."

"The heart and lungs were in a perfectly sound state."

"The vessels on the surface of the brain were turgid with blood. Between the pia mater and tunica arachnoides of the left side there was a slight degree of effusion similar to that which is found in

who had been bitten in the lip by a dog about four weeks before. This patient was under the care of Mr. Scudamore, surgeon, at Highgate. He died on the second day from the first appearance of the disease. The symptoms in this case were in many respects analogous to those just described; but having seen him only once, and having not been able to obtain leave to inspect the body, I do not consider myself as competent to relate the particulars.

cases in which death has been preceded by delirium, but in a less degree. Some of the vessels of the pia mater contained small bubbles of air; but it was doubtful whether this air had not entered the vessels, in consequence of the sawing of the scull."

"The ventricles of the brain did not contain more than the usual quantity of serum, nor were there any other morbid appearances of the brain than those above described."

I do not flatter myself that the history of this case, or the appearances exhibited on dissection, will afford any considerable assistance towards forming general conclusions. Yet I conceive, it may not be altogether unproductive of useful inferences. As my object, however, in drawing up this account, was not to enter into any pathological discussion, but merely, as I stated before, to furnish systematic writers with a few additional and well authenticated facts connected with this extraordinary disease, I shall content myself with pointing out two or three practical inferences which the case appears to suggest. I would observe in particular that the inefficacy of opium which had already been evinced by several cases on record\*, was fully confirmed by

<sup>\*</sup> See two cases communicated by Dr. Babington; the one in the first volume of the Medical Communications, and the other in the Medical Records and Researches, both of which bear, in many particulars, a very striking resemblance to this.

this; and that both iron and arsenic, two medicines to which it was very desirable to give a full trial, are likely to be added to the long-list of those from which nothing but disappointment has yet been obtained in this dreadful disorder.

I would also beg leave to point out a circumstance which does not seem to have been sufficiently remarked. I mean the pain which is felt in the parts contiguous to the bitten spot, at the moment the symptoms of hydrophobia are developed. This pain, it would appear, is apt to follow the course of the nerves rather than that of the absorbents. present case\*, as well as in one of the cases detailed by Dr. Babington, there was pain in the arm and shoulder, but without any affection of the axillary glands; and in another case, published in the second volume of the Medical Communications, the pain occasioned by a bite in the leg was referred to the hip and loins, without any affection of the inguinal absorbents. Should this remark appear to have any weight, the consequence which would naturally be drawn from it would be, that when the precaution of removing or cauterizing the part has been neglected in the first instance, it may still be adviseable to have recourse to it at any subsequent period before the developement of the disease.

THE END.

<sup>\*</sup> We dissected and examined the radial nerve; but, as we fully expected, not the least diseased appearance could be discovered.

G. Woodfall, Printer, Paternoster-row,

